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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/322,067	05/27/99	SKOLNICK	J 10886/047001

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HM12/1108

EXAMINER
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MCCARTHY III, T	
ART UNIT	PAPER NUMBER
1618	4

DATE MAILED:

11/08/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**09/322,067**

Applicant(s)  
**Skolnick et al.**

Examiner  
**McCarthy, T.C.**

Group Art Unit  
**1618**



☒ Responsive to communication(s) filed on May 27, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire one month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-52 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☐ Claim(s) \_\_\_\_\_ is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claims 1-52 are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

***Election/Restriction***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19, drawn to a functional site descriptor, classified in class 702, subclass 27.
- II. Claims 20-22, drawn to a functional site descriptor library, classified in class 702, subclass 27.
- III. Claims 23-42, drawn to a method of using a functional site descriptor, classified in class 702, subclass 27.
- IV. Claims 43-52, drawn to a method of making a functional site descriptor, classified in class 702, subclass 27.

Inventions I and II are different. A library is, by definition 2 or more compounds and the steps required to make a library of compounds are different from those required to make a single compound, the methods and steps required to use a library are different from those required for using a single compound. Therefore, art reading on one invention would not read on the other – absent ancillary art – and the restriction requirement is proper. Note: the applicant's wording in their claims (i.e. functional site descriptor) is such that the actual compound (or compounds) can be functional site descriptors.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP

' 806.05(h)). In the instant case, the site descriptor model can also be used in modeling the docking of test proteins to ascertain their function as potential ligands. As the model is currently claimed, it does not have to be used only for conformation prediction/comparisons.

Inventions I and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP ' 806.05(f)). In the instant case, the process claimed by invention IV can be used to produce descriptor models of any compounds – not just proteins.

Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP ' 806.05(h)). In the instant case, the site descriptor model library can also be used in modeling the docking of test proteins to ascertain their function as potential ligands. As the model library is currently claimed, it does not have to be used only for conformation prediction/comparisons.

Inventions II and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP ' 806.05(f)). In the instant case, the process claimed by invention IV can be used to produce descriptor models of any compounds – not just model protein libraries.

Inventions III and IV are different. The steps used to practice the inventions are different, and they are used to produce different products. Therefore, a reference reading on invention III will not read on invention IV – absent ancillary art – and the two are patentably distinct.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper. However, some of the above distinct inventions may fall within the same class and subclass. In these cases, restriction is also proper because of the reasons listed above, and because these inventions have acquired a separate status in the art due to their recognized divergent subject matter.

### *Election of Species*

Should the applicant elect invention I, an election must also be made with respect to the following patentably distinct species in the claimed invention: (A) type of functional site descriptor (claims 16, 18 and 19 – claim 1 is generic). Each of these claims is drawn to different functional sites that, in turn, have different structures and functions such that a reference reading on one would not render the others obvious – absent ancillary art. Applicant must therefore choose (for example) one functional site (i.e. a ligand binding domain that binds a cofactor).

Currently, claim 1 is generic.

Should the applicant elect invention III, an election must also be made with respect to the following patentably distinct species in the claimed invention: (A) type of protein (claims 29-35 – claim 23 is generic). Each of these claims is drawn to different proteins that, in turn, have

different structures and functions such that a reference reading on one would not render the others obvious – absent ancillary art. Applicant must therefore choose (for example) one protein (i.e. a bovine protein).

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP ' 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T.C. McCarthy whose telephone number is (703) 308-5316. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald E. Adams, can be reached on (703) 308-0570.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7924.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

September 28, 1999

T.C. McCarthy III, Ph.D.

